specification. Applicant filed a preliminary amendment on December 5, 2000 canceling claims 1-8 in the application and adding new claims 9-34. Although claims 1-8 are not pending in this application, claims 1-8 as originally filed have been added to the substitute specification as requested by the Examiner.

Claim Rejections Under 35 U.S.C. 102(e)

Claims 9-11 and 17 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 5,047,952 to Kramer et al. ("the Kramer patent"). Applicants respectfully traverse the rejection for the reasons set forth below.

The invention recited in independent claim 9 includes "a position sensor including a position sensing element coupled to [a] mount, the position sensor configured to generate a signal associated with a spatial position of the position sensing element with respect to a predetermined reference point."

The Kramer patent discloses a communications system using an instrumented glove that includes strain gage sensors in the glove that are configured to flex with movement of the user's hand disposed in the glove. The strain gage sensors transmit data to a computer to produce some form of sensible output based on the data (e.g., audible output, visual output, etc.). The strain gage data is measured and can be compared to a template to determine what alpha-numeric character or word is to be output.

The Kramer patent fails to disclose determining the position of the user's hand with respect to a predetermined reference point as recited in claim 9. The functionality of the device of the Kramer patent is completely independent of any reference to a point in space, but rather is dependent upon the deformations of the strain gages regardless of position in any frame of reference. For at least this reason, the cited reference fails to anticipate the claimed invention.

Accordingly, independent claim 9 is allowable over the cited reference. Based on their dependence upon independent claim 9, dependent claims 10-11 and 17 are also allowable.

Claim Rejections Under 35 U.S.C. 103(a)

Claim 12 was rejected under 35 U.S.C. 103(a) as being unpatentable over the Kramer patent in view of U.S. Patent No. 4,986,280 to Marcus et al. ("the Marcus patent"). Based on its dependence upon independent claim 9, which is allowable for the reasons discussed above with respect to the rejection under 35 U.S.C. 102(e), dependent claim 12 is also allowable.

Allowable Subject Matter

Applicant appreciates the Examiner's indication of allowable subject matter in claims 13-16 and 18-20.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. Applicants believe that a full and complete response has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment is respectfully requested.

Respectfully submitted,

COOLEY GODWARD LLP

Date: February 3, 2003 By: _____
Erik B. Milch
Reg. No. 42,887

COOLEY GODWARD LLP
11951 Freedom Drive
Reston Town Center
Reston, Virginia 20190-5656
(703) 456-8000 – Phone
(703) 456-8100 – Facsimile

Enclosures: Substitute Specification

Appendix indicating amendments to the specification and claims

158580 v1/RE
3#D0011.DOC

Claim Amendments

9. A system ~~for determining a finger position, the system~~ comprising:

a ~~finger~~ mount ~~adapted to be worn on a finger of a living being, the finger mount comprising one or more of a ring, a clip, a thimble, and a false fingernail~~configured to be coupled to an appendage;

a position sensor ~~comprising~~including a position sensing element ~~on~~coupled to the ~~finger~~ mount, the position sensor ~~being capable of generating~~configured to send a signal ~~related to the~~associated with a spatial position of the position sensing element with respect to a predetermined reference point; and

a data processor ~~capable of receiving the signal and generating~~configured to generate an output signal ~~indicative~~associated ~~of~~with the spatial position of the position sensing element based on the signal, ~~whereby the~~said data processor configured to determine a spatial position of the ~~finger may be determined~~mount.

10. ~~A~~The system ~~according to~~of claim ~~9~~9, wherein the ~~finger~~ mount ~~comprises~~includes a ring.

11. ~~A~~The system ~~according to~~of claim ~~10~~10, wherein the ring ~~comprises~~includes an elastic band.

12. ~~A~~The system ~~according to~~of claim ~~9~~9, wherein the ~~finger~~ mount ~~comprises~~includes a clip ~~comprising~~having flexible and separable portions.

13. ~~A~~The system ~~according to~~of claim ~~9~~9, wherein the ~~finger~~ mount ~~comprises~~includes a thimble.

14. ~~A~~The system ~~according to~~of claim ~~13~~13, wherein the thimble ~~comprises~~includes elastic material.

15. ~~A~~The system ~~according to~~of claim ~~9~~9, wherein the ~~finger~~ mount ~~comprises~~includes an artificial fingernail ~~comprising~~having a support configured to be adhesively ~~attachable~~attached to a fingernail on the finger.

16. ~~A~~The system ~~according to~~of claim ~~9~~9, wherein the position sensing element ~~comprises~~includes at least one of an electromagnetic energy transmitter ~~or~~and an electromagnetic energy receiver.

17. ~~A~~The system ~~according to~~of claim ~~9~~9, the position sensing element being a first position sensing element, the system further comprising a second position sensing element ~~positionable on another link of~~configured to be positioned apart from the ~~finger, another finger, or a wrist of the living being~~first position sensing element.

18. ~~A~~The system ~~according to~~of claim ~~9 wherein~~9, the ~~finger mount is positionable~~position sensing element being a first position sensing element configured to be positioned on a distal link of the finger, ~~and~~the system further comprising a second position sensing element ~~positionable~~configured to be positioned on a proximal link of the finger and separated from the distal link by an intermediate link.

19. ~~A~~The system ~~according to~~of claim ~~1~~818, wherein the data processor is ~~capable of calculating~~configured to calculate the spatial ~~portion~~position of the intermediate link ~~without providing a~~based on the first position sensing element ~~thereon~~and the second position sensing element.

20. ~~A~~The system ~~according to~~of claim ~~9~~9, further comprising a support structure ~~adapted~~configured to apply a force reflection ~~to the finger~~.